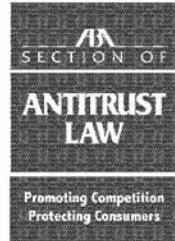


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THE RAISING RIVALS' COST FORECLOSURE  
PARADIGM, CONDITIONAL PRICING PRACTICES,  
AND THE FLAWED INCREMENTAL  
PRICE-COST TEST

STEVEN C. SALOP\*

Myriad types of business conduct can involve exclusionary conduct that can harm consumers. This conduct includes exclusive dealing, tying, predatory pricing, vertical mergers, most favored nations contracts, refusals to deal, and resale price maintenance, among others. There are two overarching law and economics paradigms for analyzing exclusionary conduct in antitrust—predatory pricing and raising rivals' costs (RRC) foreclosure.<sup>1</sup> This raises the question of which paradigm is better suited for addressing various types of allegations of anticompetitive exclusion.

Sometimes the choice of paradigm is obvious. When U.S. Tobacco ripped out the displays of its competitor, that conduct clearly fit the RRC foreclosure paradigm.<sup>2</sup> The RRC foreclosure paradigm similarly would apply if U.S. Tobacco had demanded exclusive dealing instead. When Continental Baking offered very low prices for pies in Salt Lake City, that conduct fit the predatory pricing paradigm.<sup>3</sup> However, other conduct may not be so obvious.

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\* Professor of Economics and Law, Georgetown University Law Center; and Charles River Associates. I would like to thank Jonathan Baker, Leah Brannon, Rick Brunell, Andrew Gavil, Jonathan Jacobson, Tom Krattemaker, Doug Melamed, Serge Moresi, Irv Scher, Joshua Wright, the participants at the FTC/DOJ Public Workshop on Conditional Pricing Practices, and the editors for helpful conversations or comments on an earlier draft. The opinions here do not necessarily reflect the views of GULC, firms with which I have consulted on these issues, or other CRA consultants.

<sup>1</sup> For earlier discussions of the two paradigms, see Steven C. Salop, *Exclusionary Conduct, Effect on Consumers, and the Flawed Profit-Sacrifice Standard*, 73 ANTITRUST L.J. 311, 315–18 (2006) [hereinafter Salop, *Exclusionary Conduct*]. See also Susan A. Creighton et al., *Cheap Exclusion*, 72 ANTITRUST L.J. 975 (2005).

<sup>2</sup> See *Conwood Co., L.P. v. U.S. Tobacco Co.*, 290 F.3d 768, 776–79 (6th Cir. 2002).

<sup>3</sup> See *Utah Pie Co. v. Cont'l Baking*, 386 U.S. 685, 697 (1967). Any doubts left by *Utah Pie* that the pricing need not be predatory were resolved by *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 221–22 (1993), which clarified that the same predatory pricing threshold applied to both monopoly and price discrimination cases.

Some types of conduct might appear by analogy to fit into both paradigms.<sup>4</sup> In particular, consider conditional pricing practices (CPPs), the focus of this article. CPPs include pricing that is conditioned on exclusivity or some other type of favoritism in a customer's purchases or input supplier's sales. CPPs include payments for exclusivity, loyalty discounts (or premiums in the case of input purchases), and bundle discounts or payments. On the one hand, predatory pricing might seem to apply because the conduct involves lower prices. On the other hand, RRC foreclosure might seem to apply because the conduct is analogous to exclusive dealing and tying and the condition often creates significant foreclosure and near-exclusivity. However, unlike the "explicit coercion" in these contracts, CPPs induce the near-exclusivity with the "promise" of lower prices or payments that are "conditional" on the customer's willingness to forgo some purchases from competitors. (Or, stated equivalently, the CPPs involve "threats" of higher prices if the customer does not satisfy the condition.)

The choice of paradigm has important implications for the legal analysis. While the predatory pricing paradigm would attack the "level" of the prices under the *Brooke Group* standard, the RRC foreclosure paradigm would attack the "condition" placed on the prices under the rule of reason.

This article summarizes the two antitrust paradigms for exclusionary conduct and their properties in order to understand which legal framework is more appropriate for analyzing competitive effects under particular fact situations. The article then applies the analysis to CPPs.<sup>5</sup>

The analysis in this article suggests that CPPs generally are better characterized as belonging to the RRC foreclosure paradigm. They should be analyzed like near-exclusivity contracts, not as predatory pricing.<sup>6</sup> The proper focus should be placed on the magnitude of the foreclosure and possible consumer harm, rather than whether or not the firm is pricing below some measure of costs. Economic analysis also implies that whether there is substantial foreclosure should be gauged by the impact on the competitors, including their costs, output, and ability to enter or expand. The fraction of customers or suppliers foreclosed may be relevant evidence, but it is not determinative.

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<sup>4</sup> Sean P. Gates, *Antitrust by Analogy: Developing Rules for Loyalty Discounts and Bundled Discounts*, 79 ANTITRUST L.J. 99, 122–24, 129–33 (2013).

<sup>5</sup> CPPs may be used to achieve, maintain or enhance market or monopoly power. They may be subject either to Section 1 or Section 2, depending on whether they involve contracts. They also may be subject to Section 5 of the Federal Trade Commission Act. Whichever standard is applied, however, the economic analysis and basic antitrust concerns are the same. Competitive effects analysis is similar under each of these statutes, and a common rule of reason structure can be applied to adjudicate cases involving these restraints.

<sup>6</sup> This was the approach of the Third Circuit in *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254, 281 (3d Cir. 2012).

The main focus of the entire analysis should be placed on the impact on consumers in the output market. Traditional rule of reason and antitrust injury analyses capture anticompetitive, consumer harm from CPPs better and more consistently than a price-cost test.

While the incremental price-cost test might seem appealing as a bright line standard, it actually is fundamentally flawed. First, it is not easy to implement, raising administrability concerns. Second, the test is not reliable, raising error concerns. Passing the test does not rule out anticompetitive exclusion and failing the test does not prove anticompetitive exclusion, either most or all of the time and whether or not the entrant is equally efficient. Nor is it the case that only equally or more efficient entrants have procompetitive effects on the market. The test also fails to provide reliable evidence of antitrust injury. As a result, using the test also would not point towards optimal deterrence. Instead, courts should rely on the RRC foreclosure analysis and the facts relevant to that analysis to evaluate harm to competition and consumers under the rule of reason. At the same time, to show antitrust injury, the plaintiff should be prepared to explain why it failed to obtain sufficient distribution by counterbidding or how its costs were raised by the exclusionary condition rather than by the defendant's lower price.

However, the general appropriateness of the RRC foreclosure paradigm does not mean that the predatory pricing paradigm is never relevant. CPPs can form the basis of a predatory pricing strategy. While the dominant firm's *average* prices (including any discounts) may remain above its costs, the condition may lead to its *incremental* prices falling below its costs in the relevant range of contestable sales.<sup>7</sup> In this situation, the conditional pricing may raise predatory pricing concerns under *Brooke Group*, even if the RRC foreclosure analysis does not indicate harm to competition.

It follows that the plaintiff could choose to allege a CPP strategy as predatory *conditional* pricing. Extending the *Brooke Group* analysis to predatory conditional pricing, the appropriate test would be the incremental price-cost test.<sup>8</sup> While this incremental price-cost test may still lead to false negative or false positive errors, it is the natural price-cost test to use under the reasoning of *Brooke Group*, and it would lead to fewer errors than would the use of average discounted prices.

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<sup>7</sup> *Cascade Health Sols. v. PeaceHealth*, 515 F.3d 883, 901 (9th Cir. 2008).

<sup>8</sup> See *id.* (distinguishing *Brooke Group*, 509 U.S. at 222, 224 (which did not deal with discounting involving bundling), and following *LePage's Inc. v. 3M*, 324 F.3d 141 (3d Cir. 2003) (reargued en banc)).

This article focuses on monopoly and dominant firm markets, where the CPPs raise the greatest concerns.<sup>9</sup> CPPs can allow non-dominant firms that lack market power to achieve that power, particularly where parallel exclusion by multiple firms can lead to anticompetitive coordination. But, in this market structure, competition from non-excluded firms, including substitute products, may prevent the achievement and exercise of market power and consumer harm. Procompetitive efficiency benefits also carry more weight if the excluding firm is not dominant.<sup>10</sup>

The remainder of this article is organized as follows. Part I explains and compares the predatory pricing and RRC foreclosure paradigms for exclusionary conduct. Part II explains the input and customer foreclosure mechanisms that can occur for exclusive dealing, CPPs, and other exclusionary conduct, and provides examples from the case law. Part III applies this analysis to CPPs and explains why the RRC foreclosure paradigm generally provides a better analytic fit than the predatory pricing paradigm. Part IV explains why the use of an incremental price-cost test should not be used as a threshold test for either the plaintiff or the defendant under the RRC foreclosure paradigm. Part V analyzes predatory conditional pricing and briefly applies that analysis to the recent *Eisai* case.<sup>11</sup> Part VI concludes and briefly discusses counseling concerns.

## I. ANALYZING THE TWO EXCLUSIONARY CONDUCT PARADIGMS

The two general paradigms of exclusionary conduct—predatory pricing and RRC foreclosure<sup>12</sup>—focus on different aspects of exclusionary conduct and take very different views of the relevant antitrust risks. In order to understand the law and economics of exclusionary conduct, and CPPs in particular, it is necessary to distinguish between these two paradigms.

### A. THE PREDATORY PRICING PARADIGM

Predatory pricing is one paradigmatic type of exclusionary conduct. In the simplest rendition, predatory pricing involves an across-the-board reduction in prices intended to permit a deep-pocket defendant to win a war of attrition

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<sup>9</sup> Because the issues are very similar in monopoly and dominant firm markets, the two terms will be used more or less interchangeably in this article.

<sup>10</sup> This analysis comes with the usual caveat that even where the conduct by a competitive firm is determined to be procompetitive, that showing alone does not imply that the same conduct by a dominant firm would be procompetitive.

<sup>11</sup> *Eisai, Inc. v. Sanofi Aventis U.S., LLC*, 821 F.3d 394 (3d Cir. 2016).

<sup>12</sup> For a general analysis, see Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Gain Power over Price*, 96 YALE L.J. 209 (1986); see also Salop, *Exclusionary Conduct*, *supra* note 1.

against a less well-financed entrant or small competitor.<sup>13</sup> The reduction in prices during the predatory phase of a predatory pricing strategy involves short-term profit-sacrifice or actual losses by the predator. These losses then might be recovered by supracompetitive prices during the recoupment period after the entrant exits from the market or is disciplined to raise price. Predatory pricing is a risky investment in exclusion because the predator sacrifices profits in the short-run but may be unable to recoup them in the long run. The predator may blink first in light of the fact that its profit-sacrifice (relative to more accommodative pricing) exceeds the losses borne by the entrant, as a result of the predator's higher market share. The entrant may merely reduce its output to conserve resources and wait out the attack. The entrant also may obtain the necessary financing to withstand the attack for a significant period of time and eliminate the credibility of further predatory pricing threats. Either way, the entrant may not exit. And, even if the entrant does exit, subsequent re-entry by either the entrant or competition from others may prevent the predator from recouping its profit sacrifice or losses.<sup>14</sup> This reasoning led the Court in *Matsushita* to conclude that "predatory pricing schemes are rarely tried and even more rarely successful."<sup>15</sup>

The impact on consumer welfare from such "deep-pocket" predatory pricing also is unclear, according to the paradigm.<sup>16</sup> Consumers benefit from the lower prices during the predatory phase. These benefits potentially could exceed the harms suffered by consumers during the recoupment phase, particularly if the predatory pricing period continues for a long time.<sup>17</sup> Moreover, there may never be a recoupment phase. Failed predatory pricing is a gift to consumers.<sup>18</sup>

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<sup>13</sup> In addition to this "war of attrition" theory, predatory pricing may be motivated by a desire of the predator to gain a reputation for predation that will deter future entrants, in addition to any benefits from driving the targeted entrant out of the market. Christopher R. Leslie, *Predatory Pricing and Recoupment*, 113 COLUM. L. REV. 1695, 1728–32 (2013).

<sup>14</sup> However, the new competitors might be deterred by the fear of a predatory attack by a firm that has established a reputation for predation, which would increase the likelihood of recoupment. See, e.g., Patrick Bolton, Joseph F. Brodley & Michael H. Riordan, *Predatory Pricing: Strategic Theory and Legal Policy*, 88 GEO. L.J. 2239 (2000).

<sup>15</sup> *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 589 (1986).

<sup>16</sup> See, e.g., John McGee, *Predatory Pricing: The Standard Oil (N.J.) Case*, 1 J.L. & ECON. 137 (1958). Some recent economics literature has argued that Standard Oil actually did engage in predatory pricing, contrary to McGee's claims. See James A. Dalton & Louis Esposito, *Standard Oil And Predatory Pricing: Myth Paralleling Fact*, 38 REV. INDUS. ORG. 245 (2011); James A. Dalton & Louis Esposito, *Predatory Price Cutting and Standard Oil: A Re-Examination of the Trial Record*, 22 RES. L. & ECON. 155 (2007). For other examples of successful predatory pricing, see Jonathan Baker, *Exclusion as a Core Competition Concern*, 78 ANTITRUST L.J. 527, 542–43 & n.76 (2013), and the references cited therein.

<sup>17</sup> See, e.g., *Matsushita*, 475 U.S. at 592–93.

<sup>18</sup> Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 26 (1984).

Based on this reasoning, the Supreme Court has taken a very light-handed approach to allegations of predatory pricing. Price cuts are considered presumptively procompetitive. Despite the fact that information about the defendant's prices and costs are in the hands of the defendant, the burden of production is placed on the plaintiff to show that there is below-cost pricing.<sup>19</sup> The plaintiff also must show a high likelihood of recoupment, including whether the expected profits during the recoupment period likely would exceed the losses during the predatory period, taking into account the time value of money.<sup>20</sup> The recoupment analysis also may serve as a basis for evaluating whether or not there is consumer welfare harm, or as a proxy for that analysis. While not discussed in *Brooke Group*, the defendant can attempt to justify prices that are below standard measures of cost as legitimate introductory discounts, experience curve pricing, procompetitive pricing of demand complements, sales into a two-sided market, or excess capacity. In these ways, the predatory pricing paradigm is very defendant-friendly.

#### B. THE RRC FORECLOSURE PARADIGM

The modern approach to foreclosure embodied in the RRC foreclosure paradigm is very different. The RRC foreclosure paradigm generally describes exclusionary conduct that totally or partially "forecloses" competitors from access either to critical inputs or customers, with the effect of causing them to raise their prices or reduce their output, thereby allowing the excluding firm to profit by setting a supracompetitive output price, with the effect of harming consumers. A rule of reason analysis, which is commonly applied to exclusivity arrangements and other exclusionary conduct with its burden-shifting test, is entirely consistent with the RRC foreclosure paradigm.<sup>21</sup>

As explained in this article, RRC foreclosure conduct is more likely to be attempted and more likely to harm consumers than is predatory pricing. These differences imply a greater policy concern with false negatives than for pred-

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<sup>19</sup> *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 222 (1993).

<sup>20</sup> *Id.* at 224–25.

<sup>21</sup> For example, this was the basic approach set out by Justice O'Connor in her *Jefferson Parish* concurrence. *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 44–46 (1984) (O'Connor, J., concurring). Some commentators have suggested that the consumer welfare harm standard be replaced or supplemented with a requirement that the defendant's conduct involves "profit-sacrifice" or makes "no economic sense" absent anticompetitive effects. See, e.g., Gregory J. Werden, *Identifying Exclusionary Conduct Under Section 2: The "No Economic Sense" Test*, 73 ANTITRUST L.J. 413 (2006); A. Douglas Melamed, *Exclusive Dealing Agreements and Other Exclusionary Conduct—Are There Unifying Principles?*, 73 ANTITRUST L.J. 435 (2006). For an explication of the flaws in this standard, see Salop, *Exclusionary Conduct*, *supra* note 1. For one recent version of the burden-shifting rule of reason test, see Agnew v. NCAA, 683 F.3d 328, 335–36 (7th Cir. 2012). For a decision-theoretic approach to the role of presumptions and evidentiary standards in the rule of reason, see Steven C. Salop, *The Evolution and Vitality of Merger Presumptions: A Decision-Theoretic Approach*, 80 ANTITRUST L.J. 269 (2015).

tory pricing. As a matter of standard decision theory, these differences imply that antitrust law should take the stronger approach towards conduct that fits within the RRC foreclosure paradigm.

There are several reasons for these heightened concerns. First, unlike the paradigmatic view of predatory pricing, successful RRC foreclosure does not require a risky investment or losses during an initial period that may only be recouped with some probability at some later point in the future. Instead, recoupment often occurs simultaneously with RRC conduct. Thus, it is more likely to succeed, which also means that it is more likely to be attempted.

Second, unlike predatory pricing, successful RRC conduct does not require the exit of rivals, or even the permanent reduction in competitors' production capacity. If the marginal costs of established competitors are raised, those competitors will have the incentive to raise their prices and reduce their output, even if they remain viable. This also means that RRC conduct is more likely to succeed, and therefore, is more likely to be attempted.

Third, unlike paradigmatic predatory pricing, RRC foreclosure conduct is not necessarily more costly to the monopolist than it is to the excluded rivals. Some types of foreclosure would qualify as "cheap exclusion."<sup>22</sup> In the case of competing for the attention of distributors, the rival may have to pay more. A lower cost of foreclosure incurred by the excluding firm means that the conduct is more likely to succeed and, therefore, more likely to be attempted.

Fourth, while RRC exclusionary conduct can entail procompetitive efficiency benefits, those benefits are not inherent, in contrast to the short-term benefits of lower (albeit) predatory prices. There can be "naked" RRC conduct that lacks any valid and cognizable efficiency benefits.<sup>23</sup> This characterization of naked exclusionary conduct was present in a number of cases, including *Lorain Journal*,<sup>24</sup> *JTC Petroleum*,<sup>25</sup> *Conwood*,<sup>26</sup> and *Dentsply*.<sup>27</sup>

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<sup>22</sup> See Creighton et al., *supra* note 1.

<sup>23</sup> *Id.*

<sup>24</sup> *Lorain Journal* suggests no cognizable procompetitive rationale for the newspaper's decision to offer only all-or-nothing exclusive contracts to advertisers. *Lorain J. Co. v. United States*, 342 U.S. 143, 153–55 (1951) (adoption of exclusive advertising policy that deprived competing radio station of advertising revenue).

<sup>25</sup> Judge Richard Posner suggests that the sole purpose of the defendant's denying asphalt to JTC was to prevent it from acting like a maverick competitor and disrupting an alleged price-fixing cartel of the other applicators who also bought asphalt from the suppliers. *JTC Petroleum Co. v. Piasa Motor Fuels, Inc.*, 190 F.3d 775, 778–79 (7th Cir. 1999).

<sup>26</sup> *Conwood Co. v. U.S. Tobacco Co.*, 290 F.3d 768, 788 (6th Cir. 2002) (destroying competitors' display racks).

<sup>27</sup> The *Dentsply* exclusive arrangements, in principle, could have prevented free riding. But the court rejected the procompetitive justifications for the exclusivity. *United States v. Dentsply Int'l Inc.*, 399 F.3d 181, 196–97 (3d Cir. 2005).

Fifth, even if the exclusionary conduct is not a naked restraint, successful RRC foreclosure conduct does not always involve large short-term consumer benefits, unlike paradigmatic predatory pricing. As a result, “net” consumer harm is more likely on balance, even after taking the benefits into account. Thus, there also are greater risks to competition and consumer welfare from RRC foreclosure than from predatory pricing.

At the same time, however, harm to competition and consumers from RRC foreclosure conduct is not inevitable. It should not be subject to a standard of *per se* illegality. Competitors may not be significantly disadvantaged. In the case of input foreclosure, they may be able to substitute to alternative cost-effective inputs. In the case of customer foreclosure, they may have a sufficient number of alternative customers or distributors to remain a strong competitive constraint. In addition, even if certain targeted rivals are disadvantaged, there may be sufficient competition from other non-excluded competitors or substitute products to prevent the defendant from raising prices in the output market. Thus, in a RRC foreclosure case, the plaintiff must prove “power over price” (i.e., probable harm to competition as well as “raising rivals’ costs” (i.e., harm to competitors)).<sup>28</sup>

Moreover, RRC foreclosure conduct may not be naked. Some exclusionary conduct leads to cost savings, product improvements, or creation of procompetitive incentives (e.g., by eliminating free riding). However, the existence of such benefits to the excluding firm does not necessarily mean that consumers gain an overall (i.e., “net”) competitive benefit from the conduct. The efficiencies may not be passed on to consumers if the conduct simultaneously raises the costs of competitors or barriers to entry or expansion. Evaluating the likely net impact on consumers involves comparing the likely magnitudes of the opposing forces leading to higher versus lower prices to see which effect on consumers is likely to dominate. This type of balancing of probabilities is carried out in the rule of reason analysis.

### C. THE ROLE OF PRICE-COST TESTS IN THE TWO PARADIGMS

Predatory pricing and RRC foreclosure have very different mechanisms for causing anticompetitive effects. Because of these differences, there is no reason to think that they should be evaluated using the same evidentiary factors or governed by the same liability standards.

The general irrelevance of a price-cost test to RRC conduct can be illustrated and explained with a simple example of a monopolist facing emerging entry by an equally efficient entrant.<sup>29</sup> Assume that the monopolist is initially

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<sup>28</sup> Krattenmaker & Salop, *supra* note 12.

<sup>29</sup> This analysis also can be applied to conditional pricing practices. *See infra* Part IV.

charging a price of \$100 and selling 400 units. Assume that the monopolist has marginal costs of \$50, so that its profit margin is \$50 per unit, and it earns total operating profits of \$20,000. Assume that the entrant also has marginal costs of \$50 and its entry would cause the market price to fall to \$60. Suppose that at a price of \$60, the monopolist and the entrant each would sell 300 units, earning a profit margin of \$10 per unit (i.e., \$60–\$50) and total profits of \$3,000 each.

In fear of this loss of profits, suppose that the monopolist pays the only suppliers of an essential input not to sell to the entrant. In this case, the entry will fail, the monopoly price will be maintained, and consumers will be harmed, even though the monopolist is charging a price well above its costs. Even taking into account the monopolist's costs of exclusion, it is often likely that the purchase of these exclusionary rights will be profitable.

If the monopolist engages in a bidding war with the entrant over the input suppliers, the monopolist typically has significant bidding advantages. This is because the monopolist is paying to maintain its market power, whereas the entrant is only paying to achieve viability and the lower level of more competitive duopoly profits. This market power effect can fund a higher bid. In addition, an entrant that requires broad distribution or multiple input suppliers could face significant coordination impediments, as discussed in more detail below.<sup>30</sup> Thus, while the distributors would retain the nominal choice of whether to accept the exclusive, the effectiveness of its choice is impeded by the power that the dominant firm has in the bidding process. For these reasons, the law cannot rely on “competition for the contract” to maintain competitive markets.

In the example, the entrant would be willing to bid a fixed payment up to its \$3,000 profits to prevent its exclusion. In contrast, the monopolist would be willing to bid to exclude an amount up to \$17,000 (i.e., its \$20,000 monopoly profits minus its \$3,000 duopoly profits if the entrant succeeds). Thus, the monopolist would prevail with a bid of (say) \$3,001 and end up with profits of \$16,999. This implies that its revenue net of these payments would still remain well above its costs, even after taking the exclusion payment into account. Given its monopoly output of 400 units, the payment amounts to slightly more than \$7.50 per unit (i.e., \$3,001/400), the monopolist's per unit costs would be slightly more than \$57.50 (i.e., \$50 + \$7.50), while its monopoly price is \$100.<sup>31</sup> These examples are extended to more complex situations below.

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<sup>30</sup> See *id.*

<sup>31</sup> If the monopolist is making a payment per unit of its output, then the payments themselves would lead the monopolist to raise its prices.

## D. THE CHOICE OF PARADIGM

Certain exclusionary conduct clearly fits into one or the other paradigm. For some conduct, the appropriate paradigm may depend on the exact allegations being made by the plaintiff in its complaint. For example, consider the *Weyerhaeuser* Section 2 case.<sup>32</sup> The plaintiff's complaint involved allegations that the defendant bid up the price of timber input used to produce lumber output.<sup>33</sup> The allegations were analogous to predatory pricing, but applied to a buyer in the input market. The plaintiff claimed that the defendant would cause its sawmill competitors to exit from the market and thereby gain monopsony power in the input market for timber.<sup>34</sup> The Court characterized the conduct as "predatory bidding" for the timber input.<sup>35</sup>

The "predatory bidding" alleged by the plaintiff was designed to gain buy-side market power in the input market for timber.<sup>36</sup> By contrast, the plaintiff did *not* allege that the overbidding was an attempt to raise its competitors' input costs of timber and thereby gain market power in the output market for lumber. This allegation might be called "RRC overbidding." Whereas "predatory bidding" is designed to gain buy-side market power in the input market, "RRC overbidding" is designed to gain sell-side market power in the output market.<sup>37</sup>

The *Weyerhaeuser* Court appeared to accept this key distinction between the two paradigms:

If the predatory firm's competitors in the input market and the output market are the same, then predatory bidding can also lead to the bidder's acquisition of monopoly power in the output market. In that case, *which does not appear to be present here*, the monopsonist could, under certain market conditions, also recoup its losses by raising output prices to monopolistic levels.<sup>38</sup>

The *Weyerhaeuser* Court applied a price-cost test to predatory bidding on the buy-side. It reversed the lower court decision because there was no showing of short-term losses from below-cost pricing. However, had the plaintiff alleged RRC overbuying instead, the price-cost test would not have been appropriate. The fact that the defendant would be able to achieve or maintain a high, monopoly price for lumber would make it highly unlikely that it would need to bid up to the point where its costs exceed that price. Indeed, the higher

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<sup>32</sup> *Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co.*, 549 U.S. 312 (2007).

<sup>33</sup> *Id.* at 316.

<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> *Id.* at 316–17.

<sup>37</sup> See Steven C. Salop, *Anticompetitive Overbuying by Power Buyers*, 72 ANTITRUST L.J. 669 (2005).

<sup>38</sup> *Weyerhaeuser*, 549 U.S. at 321 n.2 (emphasis added).

price of lumber would make it less likely that it would be necessary to bid for timber up to level where its revenue falls short of its costs.

When both types of conduct are present, it would make sense to apply whichever paradigm is appropriate for each type of conduct. The paradigms apply to particular categories of conduct, not to particular defendants. This was the approach in *Microsoft*, where there were allegations of predatory pricing as well as allegations of several types of RRC foreclosure conduct.<sup>39</sup> It would thus be erroneous to artificially limit the antitrust analysis in a case to a single paradigm when the conduct is multifaceted.<sup>40</sup>

For other types of conduct, there may be more controversy about the proper paradigm to apply. This has been the case for CPPs. For example, in *ZF Meritor*, the court applied the RRC foreclosure paradigm. However, the court suggested that it would have applied the predatory pricing paradigm if price was the “clearly predominant mechanism” for exclusion.<sup>41</sup>

In *Eisai*, the Third Circuit reiterated that view.<sup>42</sup> It went on to affirm the district court’s decision to grant summary judgment to Sanofi under a rule of reason analysis because Eisai had failed to introduce sufficient evidence of foreclosure and anticompetitive effects.<sup>43</sup> Finally, having rejected Eisai’s evidence of foreclosure, the court of appeals concluded that, although the district court had rested its decision to grant summary judgment on application of a

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<sup>39</sup> United States v. Microsoft Corp., 87 F. Supp. 2d 30, 35 (D.D.C. 2000). The district court did not find liability for predatory pricing and the government did not pursue this issue on appeal. United States v. Microsoft Corp., 253 F.3d 34, 58 (D.C. Cir. 2001).

<sup>40</sup> The scholarly analysis of *Standard Oil* case reflects this diversity of allegations. The case has been analyzed as predatory pricing, and controversy reigns over the correctness of that view today. IDA TARBELL, THE HISTORY OF THE STANDARD OIL COMPANY (1904); McGee, *supra* note 16; Dalton & Esposito, *supra* note 16. Benjamin Klein and Elizabeth Granitz subsequently argued that the case actually involved collusive RRC behavior. Benjamin Klein & Elizabeth Granitz, *Monopolization by ‘Raising Rivals’ Costs’: The Standard Oil Case*, 39 J.L. ECON. 1 (1996). Klein and Granitz argue that Standard Oil and the railroads cooperated to raise the costs of Standard Oil’s rivals and then essentially shared the monopoly profits through rail transport prices. For a related but somewhat different view of the case, see George L. Priest, *Rethinking the Economic Basis of the Standard Oil Refining Monopoly: Dominance Against Competing Cartels*, 85 S. CAL. L. REV. 499 (2012), and the follow-up essay, Benjamin Klein, *The “Hub and Spoke” Conspiracy that Created the Standard Oil Monopoly*, 85 S. CAL. L. REV. 459 (2012). Daniel Crane also argues that there appears to be a RRC element in the case. Daniel A. Crane, *Were Standard Oil’s Rebates and Drawbacks Cost Justified*, 85 S. CAL. L. REV. 559 (2012).

<sup>41</sup> *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254, 274 (3d Cir. 2012) (“[W]hen price is the clearly predominant mechanism of exclusion, the price-cost test tells us that, so long as the price is above-cost, the procompetitive justifications for, and the benefits of, lowering prices far outweigh any potential anticompetitive effects.”). Part V *infra* discusses fact situations where the conduct can be analyzed as predatory *conditional* pricing under an extended-Brooke Group analysis.

<sup>42</sup> *Eisai, Inc. v. Sanofi Aventis U.S., LLC*, 821 F.3d 394, 409 (3d Cir. 2016).

<sup>43</sup> *Id.* at 407–08.

price-cost test, it was unnecessary to decide whether the price-cost test would apply to Sanofi's conduct.<sup>44</sup>

## II. INPUT AND CUSTOMER FORECLOSURE IN THE RRC FORECLOSURE PARADIGM

In applying the RRC foreclosure paradigm to exclusive dealing, CPPs, or other exclusionary conduct under the rule of reason, it is useful to distinguish two foreclosure mechanisms by which exclusionary conduct can harm competition: "input foreclosure" and "customer foreclosure."<sup>45</sup> Proper analysis of CPPs requires an understanding of this distinction, and failure to recognize the distinction can lead to error. For example, sometimes the analysis of CPPs erroneously assumes that only customer foreclosure issues are raised by the conduct. However, in fact, both types of foreclosure are relevant for a rule of reason analysis of conditional pricing practices, as well as for exclusive dealing and tying. The two types of foreclosure can occur separately. But they also can and do occur simultaneously and reinforce one another.

The concurring opinion in *Jefferson Parish* raises both types of concerns: "Exclusive dealing can have adverse economic consequences by allowing one supplier of goods or services unreasonably to deprive other suppliers of a market for their goods, or by allowing one buyer of goods unreasonably to deprive other buyers of a needed source of supply."<sup>46</sup>

Conduct to "deprive other suppliers of a market for their goods" implicates customer foreclosure, whereas conduct to "deprive other buyers of a needed source of supply" corresponds to input foreclosure.<sup>47</sup> The input foreclosure theory explains how exclusives or other conduct can literally raise rivals' costs of a critical input by restricting in some way one or more rivals' access to one or more input suppliers. The customer foreclosure theory explains how exclusives or other exclusionary conduct can reduce rivals' access to some or all of the entire customer base, thereby reducing their output and their ability to expand.

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<sup>44</sup> *Id.* at 409.

<sup>45</sup> For the basic distinction between input and customer foreclosure in the context of vertical mergers, see Michael H. Riordan & Steven C. Salop, *Evaluating Vertical Mergers: A Post-Chicago Approach*, 63 ANTITRUST L.J. 513 (1995). See also Eur. Comm'n, *Guidelines on the Assessment of Non-horizontal Mergers Under the Council Regulation on the Control of Concentrations Between Undertakings*, 2008 O.J. (C 265) 6. This article provides a deeper analysis and applies the distinction more broadly than just to vertical mergers.

<sup>46</sup> *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 45 (1985).

<sup>47</sup> These two types of foreclosure can occur separately. They can also occur in tandem, for example, when the foreclosure involves distributors. Distributors can be characterized both as customers and as suppliers of distribution services as an input.

Distributors can be viewed as providing a distribution services input rather than as being customers. Foreclosing competitors from a distribution input can force those competitors to use higher cost or less efficient distributors or direct distribution, which can lead the firm in turn to reduce its output.<sup>48</sup> Customer foreclosure can reduce the rivals' capacity to serve a wide customer base, which can lead to output reductions. Customer foreclosure also can cause the foreclosed competitors to suffer higher costs, with attendant effects on output. As a result of these higher costs and reduced outputs, both input and customer foreclosure may cause one or more rivals to fail to expand, exit, or shrink. They also may lead to reduced incentives to invest. Foreclosure conduct also can harm competition by facilitating a "dampening" of competition.<sup>49</sup>

While consumers can still choose to purchase from the disadvantaged rivals, their choice is impeded because of the disadvantages suffered by the rivals from the foreclosure.<sup>50</sup> As a result, the excluding firm may achieve, enhance, or maintain market power in the input or output market.<sup>51</sup> The market power may be unilateral or may involve coordination among downstream firms.<sup>52</sup> In the RRC foreclosure paradigm, the ultimate antitrust concern is not the harm to the rivals, but rather the possible harm to consumers and competitive process from the resulting market power. These anticompetitive effects are not inevitable because there may be continued competition from unexcluded rivals or substitute products. The paradigm also recognizes that there may be consumer benefits that accompany the foreclosure.

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<sup>48</sup> For the recognition of distributors providing a distributional services input for which they charge a "cost of distribution," see *Continental T.V., Inc. v. Sylvania Inc.*, 433 U.S. 36, 57 n.24 (1977).

<sup>49</sup> See, e.g., Y. Joseph Lin, *The Dampening-of-Competition Effect of Exclusive Dealing*, 39 J. INDUS. ECON. 209 (1990); Daniel O'Brien & Greg Shaffer, *On the Dampening-of-Competition Effect of Exclusive Dealing*, 42 J. INDUS. ECON. 215 (1993).

<sup>50</sup> In *Eisai*, the Third Circuit did not view the choice as sufficiently impeded by the large price penalty for violating the no-steering provision of the formulary access agreement. See *Eisai, Inc. v. Sanofi Aventis U.S., LLC*, 821 F.3d 394, 406-07 (3d Cir. 2016). However, the issue is not whether the entrant's product would not be chosen *under any circumstances* in light of the monopolist's conduct, but rather whether the monopolist is able to maintain a higher degree of monopoly power as a result of its conduct.

<sup>51</sup> For the basic economic analysis, see Steven C. Salop & David Scheffman, *Raising Rivals' Costs*, 73 AM. ECON. REV. 267 (1983); Krattenmaker & Salop, *supra* note 12. For an application of the theory to exclusive dealing, see Jonathan M. Jacobson, *Exclusive Dealing, "Foreclosure," and Consumer Harm*, 70 ANTITRUST L.J. 311, 347-64 (2002).

<sup>52</sup> There may also be multiple excluding firms, where competition among them is not sufficient to prevent consumer harm. See, e.g., Scott Hemphill & Tim Wu, *Parallel Exclusion*, 122 YALE L.J. 1182 (2013).

## A. INPUT FORECLOSURE

Exclusive dealing, conditional pricing practices, and other exclusionary conduct can raise entrants' or existing rivals' costs by "input foreclosure," that is, by materially raising their costs or eliminating their efficient access to critical inputs.<sup>53</sup> These inputs can involve manufacturing inputs, such as raw materials, intellectual property, or distribution. Distribution can be understood as an input, and raising rivals' costs of distribution can weaken their ability to serve the entire customer base and their ability and incentives to expand.<sup>54</sup> For example, by excluding its rivals' access to an efficient distribution system or other input, a monopolist can reduce the rivals' ability to induce downward pricing pressure and so can permit the monopolist to maintain its monopoly power in the face of entry.

Input foreclosure has arisen in various cases. For example, in *JTC Petroleum*,<sup>55</sup> Judge Richard Posner described a cartel of highway contractors who applied asphalt to roads and conspired with asphalt suppliers to raise the costs of a maverick competitor, apparently by offering them a higher price in exchange for not selling to the rival. In *Microsoft*,<sup>56</sup> the D.C. Circuit condemned Microsoft's exclusive arrangements with computer manufacturers and Internet Access Providers that distributed the Internet Explorer web browser over the competing Netscape web browser. In doing so, the court found it sufficient that Microsoft's practice forced Netscape to adopt more costly and less effective distribution methods, even though Microsoft had not "completely excluded Netscape" from the market.<sup>57</sup>

The substantiality of input foreclosure is demonstrated most accurately by the resulting impact on the competitors' costs and output, not by the simple fraction of input suppliers that are affected. Input foreclosure can be so severe

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<sup>53</sup> Riordan & Salop, *supra* note 45, at 528–50; Janusz Ordover et al., *Equilibrium Vertical Foreclosure*, 80 AM. ECON. REV. 127 (1990). In this analytic framework, it is often useful and valid to characterize distributors as suppliers of a distribution services input, rather than simply as customers. *See* Krattenmaker & Salop, *supra* note 12, at 226.

<sup>54</sup> As famously summarized by Robert Bork, "In any business, patterns of distribution develop over time; these may reasonably be thought to be more efficient than alternative patterns of distribution that do not develop. The patterns that do develop and persist we may call the optimal patterns. By disturbing optimal distribution patterns one rival can impose costs upon another, that is, force the other to accept higher costs." ROBERT H. BORK, THE ANTITRUST PARADOX 156 (1978); *see also* Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 604 n.31 (1985) (quoting Bork); United States v. Dentsply Int'l, Inc., 399 F.3d 181, 191 (3d Cir. 2005); United States v. Microsoft Corp., 253 F.3d 34, 70 (D.C. Cir. 2001).

<sup>55</sup> *JTC Petroleum Co. v. Piasa Motor Fuels, Inc.*, 190 F.3d 775, 777 (7th Cir. 1999).

<sup>56</sup> *Microsoft Corp.*, 253 F.3d at 70 (affirming the district court's finding that "Microsoft had substantially excluded Netscape from 'the most efficient channels for Navigator to achieve browser usage share,' and had relegated it to more costly and less effective methods.") (internal citations omitted).

<sup>57</sup> *Id.* at 69–71.

that the foreclosed rivals will exit from the market or be deterred from attempting entry.<sup>58</sup> But even if a rival can cover its costs and remain viable, it will be a weaker and less efficient competitor if its distribution or other input costs are higher. A competitor will have the incentive to raise its prices and/or restrict its output when its marginal costs are increased, even if it earns enough revenue to cover its costs or even to reach minimum efficient scale.<sup>59</sup> Thus, input foreclosure is substantial if it substantially increases rivals' costs or constrains their output or ability to expand. Similar results occur if the foreclosure reduces rivals' product quality.

Some commentators inappropriately focus solely on whether the foreclosure will prevent entrants or small competitors from reaching "minimum efficient scale" (MES), the output level where a firm's average costs bottom out.<sup>60</sup> Others inappropriately limit their concerns solely to whether the foreclosure will prevent rivals from reaching "minimum viable scale" (MVS), the output level where a firm can turn a profit at current prices and thus survive.<sup>61</sup> This narrowing of concerns is artificial and leads to false negatives and underdeterrence. The conditions under which foreclosure can reduce competition are not limited to a failure to achieve MES or MVS.

Even if a viable rival is able to reach the MES output level, its costs may be significantly raised by exclusionary conduct if it has to pay more for distribution or other inputs or if it has to use a more costly input or distribution method.<sup>62</sup> In that sense, its costs also will not be truly minimized, regardless

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<sup>58</sup> See Krattenmaker & Salop, *supra* note 12, at 246–47 ("Raising Barriers to Entry").

<sup>59</sup> This reasoning also explains why a "total foreclosure" standard would lead to false negatives. It is not necessary to cause a rival to exit for exclusive dealing to have anticompetitive effects. Raising rivals' costs or restricting their output to a lower level can permit a dominant firm or monopolist profitably to raise or maintain supracompetitive prices.

<sup>60</sup> Joshua D. Wright, *Moving Beyond Naïve Foreclosure Analysis*, 19 GEO. MASON L. REV. 1163, 1163–64 (2012) [hereinafter Wright, *Naïve Foreclosure*]; see also Benjamin Klein, *Exclusive Dealing as Competition for Distribution "On the Merits,"* 12 GEO. MASON. L. REV. 119, 122–28 (2003). This analysis could be applied to customer foreclosure as well as input foreclosure. In *Naïve Foreclosure*, Professor Wright mistakenly suggests that there is a "consensus" on the key role of MES and erroneously quotes Krattenmaker and Salop, *supra* note 12, as offering support. Wright, *Naïve Foreclosure*, *supra*, at 1166. For further discussion, see *infra* note 62.

<sup>61</sup> Daniel A. Crane & Graciela Miralles, *Toward a Unified Theory of Exclusionary Vertical Restraints*, 84 S. CAL. L. REV. 605, 646 (2011). The concepts of MES and MVS are different. The 1992 Horizontal Merger Guidelines explained the difference between minimum viable scale and minimum efficient scale in the context of merger analysis. "The concept of minimum viable scale ("MVS") differs from the concept of minimum efficient scale ("MES"). While MES is the smallest scale at which average costs are minimized, MVS is the smallest scale at which average costs equal the premerger price." U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines § 3.3, at 28 n.29 (1992) [hereinafter 1992 Horizontal Merger Guidelines]. In the context of exclusivity by a monopolist, the relevant price might be either the monopolist's pre-entry or post-entry price, depending on the exact question being analyzed.

<sup>62</sup> In his *McWane* dissent, Commissioner Wright erroneously relies on Krattenmaker & Salop as support for his claim that "[t]he concept of 'raising rivals' costs' . . . generally requires input

of scale. For example, even if direct distribution is feasible or substitute distributors exist, higher costs from the foreclosure will reduce efficiency and the rival's competitive impact. Similarly, even if a rival's output exceeds MVS and the competitor remains viable, bearing higher costs from the foreclosure will reduce its efficiency and the competitive constraint it provides. It is in this sense that consumer choice is impeded, even if consumers retain a literal choice among the firms. In both cases, the excluding firm may gain the power to raise or maintain supracompetitive prices as a result.

An antitrust rule that would limit antitrust liability only if foreclosure leads to one or more rivals being unable to reach the MES or MVS output level would create substantial false negatives. As discussed later on, false negatives would be further increased if antitrust protection applied only to hypothetical equally efficient competitors, rather than focusing on whether the entry and competition by actual, real-world competitors would benefit consumers and competition.

#### B. CUSTOMER FORECLOSURE

Customer foreclosure focuses on the impact of losing efficient access to customers, including distributor customers. Customer foreclosure by a monopolist can injure competitors and harm competition in several distinct ways. First, in the most extreme scenario, the customer base of an entrant or small rival may be limited to such a degree that it is unable to earn sufficient revenue to cover its costs and remain viable in the market. If anticipated sales likely would fall below this "minimum viable scale (MVS)," an entrant would lack an incentive to enter and an existing competitor would have the incentive to exit.<sup>63</sup> Second, the entrant or competitor may remain viable, but customer

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foreclosure sufficient to deprive a rival from achieving minimum efficient scale." Dissenting Statement of Comm'r Joshua D. Wright 11 n.15, *McWane, Inc.*, FTC Docket No. 9351 (Feb. 6, 2014), [www.ftc.gov/system/files/documents/public\\_statements/202211/140206mcwanestatement.pdf](http://www.ftc.gov/system/files/documents/public_statements/202211/140206mcwanestatement.pdf). Wright quotes Krattenmaker and Salop, *supra* note 12, at 247, to the effect that "[E]xcluded rivals no longer produce at minimum cost if the exclusionary rights agreement compels them to substitute less efficient inputs." Wright, *Naive Foreclosure*, *supra* note 60, at 1166 n.20. However, this quotation from the efficiency section of the Krattenmaker and Salop article does not refer to MES. Instead, the quotation and the thrust of the entire article refers to *any* variable cost increase. If rivals are deprived access to the most cost-efficient inputs or have to pay more for them, the rivals' costs will be higher, even if the rival achieves MES. These rivals will provide less of a competitive constraint, which can permit the monopolist to gain power over price to maintain its monopoly prices. *See also* Riordan & Salop, *supra* note 45. These conditions are much more general than whether the restraint prevents the rival from reaching a particular scale of output such as the MES. Nor would these cost disadvantages necessarily force the rivals to fall below MVS and exit.

<sup>63</sup> As explained in the 1992 Horizontal Merger Guidelines: "Minimum viable scale is the smallest average annual level of sales that the committed entrant must persistently achieve for profitability at premerger prices." 1992 Horizontal Merger Guidelines, *supra* note 61, § 3.3, at 28. This is different from whether the entrant or competitor is able to achieve the MVS.

foreclosure may limit its output to a low level and constrain its ability and incentive to expand profitably, by reducing its capacity or by raising its effective costs of expansion. This impact can occur even if the rival can achieve the MVS or MES output level.<sup>64</sup> Third, such customer foreclosure may permit the rival to remain in the market, but may relegate it to a niche position at a low output level, where it will provide less of a constraint on the pricing of the excluding firm(s), again, even if it reaches MES.<sup>65</sup> For example, a monopolist may have the incentive to maintain monopoly prices while ceding a small market share to the entrant.<sup>66</sup> Or, the monopolist may reduce prices, but only to a limited extent because the constrained competitor will not pose a significant threat, or will pose less of a threat. Consumers clearly are harmed by this foreclosure that maintains higher prices. Fourth, by reducing the competitor's likely potential customer base, customer foreclosure may reduce the rival's

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<sup>64</sup> If its output is restricted to a low level, the rival will not provide less of a competitive constraint, even if that low output level exceeds MVS and MES. Professor Klein's article artificially narrowed the focus to MES. He states: "Anticompetitive exclusive dealing requires foreclosure of a sufficient share of distribution so that a manufacturer's rivals are forced to operate at a significant cost disadvantage for a significant period of time. In particular, if exclusive contracts foreclose a sufficient share of distribution to rivals for a significant time so that what remains to serve competitors cannot support a manufacturer of minimum efficient scale, the exclusive will force existing competitors and potential new entrants to operate at a cost disadvantage." Klein, *supra* note 60, at 122–28. While the first sentence states the general point about the rival suffering any significant cost disadvantage, the second sentence ("In particular") discusses only one particular way in which costs are raised, but then never returns to the more general case. In the case of MVS, Professors Crane and Miralles simply *define* "substantial foreclosure" as the amount of foreclosure that would eliminate the "reasonable survival opportunity" of an equally efficient rival to reach MVS. Crane & Miralles, *supra* note 61, at 29. The test is made generally more permissive, of course, by applying it to an equally efficient rival, not to the actual competitor foreclosed.

<sup>65</sup> For a sample of technical economic theory articles related to customer foreclosure and the potential for harms from exclusive dealing, see Michael D. Whinston, *Tying, Foreclosure, and Exclusion*, 80 AM. ECON. REV. 837, 839 (1990); Eric B. Rasmusen et al., *Naked Exclusion*, 81 AM. ECON. REV. 1137, 1140–43 & n.4 (1991); Ilya R. Segal & Michael D. Whinston, *Naked Exclusion: Comment*, 90 AM. ECON. REV. 296, 297 (2000); Michael D. Whinston & B. Douglas Bernheim, *Exclusive Dealing*, 70 J. POL. ECON. 64 (1998); Dennis W. Carlton & Michael Waldman, *The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries*, 33 RAND J. ECON. 194, 196 (2002).

<sup>66</sup> If the entrant faces capacity constraints, the monopolist might do better by accommodating small scale entry while maintaining a high price. An entrant can exploit this accommodation incentive by limiting its capacity or ability to expand in other ways. For the standard economic analysis of the incentives to accommodate the entry of an entrant constrained to remain small, see Drew Fudenberg & Jean Tirole, *The Fat-Cat Effect, the Puppy-Dog Ploy, and the Lean and Hungry Look*, 74 AM. ECON. REV. (PAPERS & PROC.) 361 (1984); Judith R. Gelman & Steven C. Salop, *Judo Economics: Capacity Limitation and Coupon Competition*, 14 BELL J. ECON. 315 (1983); Avner Shaked & John Sutton, *Relaxing Price Competition Through Product Differentiation*, 49 REV. ECON. STUD. 3 (1982); Louis A. Thomas, *Incumbent Firms' Response to Entry: Price, Advertising, and New Product Introduction*, 4 INT'L J. INDUS. ORG. 527 (1999). For application to competitive effects analysis of mergers, see Steven C. Salop, *Measuring Ease of Entry*, 331 ANTITRUST BULL. 551, 559 n.10 (1986).

incentives to invest and innovate over time. This can harm consumers directly.<sup>67</sup> It also can weaken the monopolist's own incentives to innovate.

Thus, the degree of foreclosure is not gauged primarily by the fraction of distributors or customers that are affected, but rather by the impact on the competitors and competition in the downstream market. In order to avoid false negatives, the proper standard also cannot be restricted solely to whether there is total foreclosure.<sup>68</sup> Nor would the proper standard be limited only to when the competitor suffering the effects of the foreclosure is unable to survive in the market.

The condemned conduct in *Lorain Journal Co. v. United States*<sup>69</sup> provides a classic example of customer foreclosure. The *Journal* enjoyed a "complete daily newspaper monopoly of local advertising" in Lorain, Ohio, distributing its paper to 99 percent of families in the area.<sup>70</sup> The *Journal* adopted a policy of refusing to accept local advertising from any Lorain County advertiser who also advertised with WEOL, a local radio station that recently entered the market.<sup>71</sup> The policy deterred many local merchants from advertising with the radio station, creating a dangerous probability of the radio station going out of business had the *Journal*'s conduct not been enjoined by the lower court.<sup>72</sup> The Supreme Court affirmed the lower court's holding that the exclusive dealing constituted an attempted monopolization in violation of Section 2 of the Sherman Act by depriving the radio station of a market for its advertising air time.<sup>73</sup>

*Meritor*<sup>74</sup> also involved customer foreclosure by Eaton, allegedly to raise the barriers to competition by Meritor, its only competitor. Eaton's CPPs allegedly provided discounts to the four truck manufacturers that purchased almost all of their transmissions from Eaton under long-term contracts (about 90 percent for three of the companies and 70 percent for the other, which

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<sup>67</sup> See Robert Dorfman & Peter O. Steiner, *Optimal Advertising and Optimal Quality*, 44 AM. ECON. REV. 826 (1954). The "advertising" variable in their model can be reinterpreted as investment. If the maximum customer base is lowered from foreclosure, profit maximization would tend to lead to less investment.

<sup>68</sup> *ZF Meritor LLC v. Eaton Corp.*, 696 F.3d 254, 283 (3d Cir. 2012) ("'[T]otal foreclosure' is not required for an exclusive dealing arrangement to be unlawful . . . .") (citation omitted); *United States v Dentsply Int'l Inc.*, 399 F.3d 181, 191 (3d Cir. 2005) ("The test is not total foreclosure, but whether the challenged practices bar a substantial number of rivals or severely restrict the market's ambit.") (citation omitted); *United States v. Microsoft Corp.*, 253 F.3d 34, 69–71 (D.C. Cir. 2001).

<sup>69</sup> 342 U.S. 143 (1951).

<sup>70</sup> *Id.* at 149–50.

<sup>71</sup> *Id.* at 148.

<sup>72</sup> *Id.* at 150.

<sup>73</sup> *Id.* at 154.

<sup>74</sup> *ZF Meritor*, 696 F.3d at 264, 266–67.

produced some of its own transmissions). In addition to the CPPs, Eaton also required the manufacturers to “preferential price Eaton transmissions against competitors’ equivalent transmissions.”<sup>75</sup>

Input and customer foreclosure also can occur simultaneously, for example, if a rival’s costs are raised through input foreclosure and its customer base is reduced through customer foreclosure.<sup>76</sup> This is commonly the case when the exclusives or other exclusionary conduct involve distributors. Distributors are properly characterized as supplying the manufacturer with a distribution services input, as well as being customers of the manufacturer. When input and customer foreclosure occur simultaneously, their impacts can be mutually reinforcing. The higher costs from input foreclosure can prevent the rival from serving certain customers at low cost, which then can cause it to exit or be neutralized, or reduce its incentives to invest. If marginal (variable) costs are higher when output is lower, customer foreclosure can lead to a rival having such higher costs as a result of having a lower scale of production.<sup>77</sup> Or, if a rival’s sales are restricted by customer foreclosure, the rival may be unable to negotiate low input prices with certain suppliers. Or the rival may find it uneconomical to adopt a more efficient technology that requires a high scale of production to cover its investment and other fixed costs.<sup>78</sup> If a rival has higher costs or is limited to a low effective capacity, a monopolist or dominant firm will have the ability and incentive to charge higher prices to consumers.

*Dentsply*<sup>79</sup> is a case that focused on customer foreclosure but where input foreclosure also appears to be involved. The defendant, Dentsply, a manufacturer of artificial teeth, with a 75–80 percent share of the relevant market, adopted a policy (known as “Dealer Criterion 6”) of refusing to sell to any dealer that added a competing artificial tooth line to its product offering. Although competing manufacturers could, and did, sell directly to customers, the court found that distributing artificial teeth through dealers had lower transactions costs<sup>80</sup> and other advantages over direct distribution and acted as the

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<sup>75</sup> *Id.* at 266.

<sup>76</sup> One example of this is a situation where a new entrant needs to obtain one or more “lead customers” to sponsor its entry into the market or attest to the reliability of its product, and thereby reduce its costs, including marketing costs in selling to others. A related type of claim was made by AMD in its complaint against Intel. Advanced Micro Devices, Inc. v. Intel Corp., No. 05-441, ¶ 129 (D. Del. filed June 27, 2005), [download.intel.com/pressroom/legal/amd/1\\_1\\_Complaint%20Main%20Doc\\_AMD.pdf](http://download.intel.com/pressroom/legal/amd/1_1_Complaint%20Main%20Doc_AMD.pdf). Professor Salop served as an economic consultant to Intel in the European Commission proceeding.

<sup>77</sup> This particular point also would be relevant to a situation where the competitor is unable to expand to an output level closer to MES.

<sup>78</sup> *McWane Inc. v. FTC*, 783 F.3d 814, 840 (11th Cir. 2015).

<sup>79</sup> *United States v Dentsply Int’l Inc.*, 399 F.3d 181 (3d Cir. 2005).

<sup>80</sup> *Id.* at 192–93.

“gateway[ ]” to dental laboratory customers.<sup>81</sup> The Third Circuit thus concluded that Dealer Criterion 6 was “a solid pillar of harm to competition” because “[i]t help[ed] keep sales of competing teeth below the critical level necessary for any rival to pose a real threat to Dentsply’s market share.”<sup>82</sup>

The case law, however, does not condemn every instance of exclusivity that somehow interferes with a rival’s ability to get its product to market. For example, the Ninth Circuit, in *Omega Environmental, Inc. v. Gilbarco, Inc.*,<sup>83</sup> held that the record evidence was insufficient to support a jury’s finding that Gilbarco’s exclusive dealing violated Section 3 of the Clayton Act. In that case, Gilbarco instituted a policy of dealing only with distributors who sold its line of retail gasoline dispensers exclusively. Unlike the situation in *Microsoft* and *Dentsply*, the court found that selling through distributors was not the only efficient route to market. Rather, the court found that there was “undisputed evidence that direct sales to end-users [was] an alternative channel of distribution,” with the number two manufacturer, Dresser, making 73 percent of its sales without the aid of a distributor.<sup>84</sup> In addition, the majority concluded that Schlumberger was able to enter the gasoline dispenser market and successfully expand its sales, notwithstanding Gilbarco’s exclusive dealing.<sup>85</sup> Given its findings, the court did not condemn the challenged arrangement.

In *Eisai*, the district court and the Third Circuit also rejected the plaintiff’s customer foreclosure claims.<sup>86</sup> In that matter, the CPPs applied to the final hospital customers, not distributors. The court concluded that Sanofi’s unique medical indication and the alleged deception did not create a significant disadvantage facing Eisai in the form of significant non-contestable sales. Eisai apparently was not in danger of exiting or reducing its investments. Therefore, the court concluded that Eisai could have competed with Sanofi on an equal footing for each customer with its own price cuts, unencumbered by Sanofi’s “condition.” Moreover, Eisai offered its own CPPs.<sup>87</sup> Thus, the court concluded that Sanofi’s CPPs simply did not foreclose competition substantially.

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<sup>81</sup> *Id.* at 193.

<sup>82</sup> *Id.* at 191.

<sup>83</sup> 127 F.3d 1157 (9th Cir. 1997).

<sup>84</sup> *Id.* at 1163.

<sup>85</sup> *Id.* at 1164.

<sup>86</sup> See *Eisai, Inc. v. Sanofi Aventis U.S., LLC*, 821 F.3d 394 (3d Cir. 2016), *aff’g* *Eisai Inc. v. Sanofi-Aventis U.S., LLC*, No. 08-4168, 2014 WL 1343254, at \*36 (D.N.J. Mar. 28, 2014).

<sup>87</sup> Sanofi’s CPPs appeared to involve below-cost incremental prices over a wide range. However, Eisai apparently did not allege—and the court did not analyze the conduct as—predatory conditional pricing, as discussed in more detail, *infra* Part V.